Anemometer

Make your own anemometer
to see how fast the wind is blowing!

Kit contains:

- 4 small cups
- 2 straws
- 1 straight pin
- 1 pencil

You will need: tape (duct tape is best, but any tape is okay).

Optional: paper, pencil, timer, and either a marker or a crayon.

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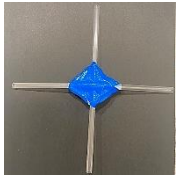
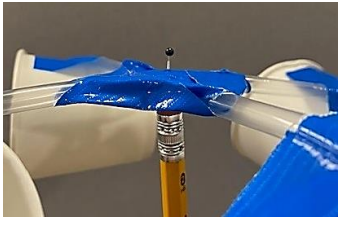
INSTRUCTIONS



(1) Place the straws **perpendicular** to each other in a cross and tape them in the middle.

(2) Tape a cup to each straw as shown. Use plenty of tape! Make sure the cups are all open in the same direction.

(3) Push the straight pin through the middle of the straws and into the pencil eraser. There should be some space between the straws and the eraser. Check that it can spin; if not, loosen the pin a bit.



(4) Go outside on a windy day. Hold the pencil and watch your anemometer spin!

MEASURING WIND SPEED

For this extension, you will need a timer, pencil, piece of paper, and a marker or crayon.

- Put a colorful mark on one cup so you can better see it going around.
- Count how many times the anemometer spins in 1 minute. If you don't want to count for a full minute, count the spins in 10 seconds and multiply by 6. Write it down.
- Repeat several times when the wind feels different. You can keep track of the wind speeds! For example, if your anemometer spins 40 times in 1 minute, then the wind speed is 40 turns per minute. A windier speed might be 70 turns/minute. Sometimes your anemometer can spin too fast to count. That's okay. Try again another time.

You can visit the State Climatologist Office for Illinois to see the average wind speed:

isws.illinois.edu/statecli/wind/wind.htm

The anemometers that **meteorologists** (weather scientists) use are very similar to the one you made. Unlike yours, meteorologists' anemometers use computers to keep track of the data. Knowing the wind speed is very important when tracking hurricanes and tornadoes.

Meteorologists also use the **Beaufort Wind Scale** to measure wind speed.

0	Calm	Smoke rises vertically
1	Light Air	Smoke drifts slowly
2	Light Breeze	Wind felt on face; leaves rustle
3	Gentle Breeze	Twigs move; light flag unfurls
4	Moderate Breeze	Dust and paper blown about
5	Fresh Breeze	Small trees move
6	Strong Breeze	Large branches sway
7	Near Gale	Whole trees sway; walking difficult
8	Gale	Twigs break off trees
9	Strong Gale	Roof tiles and branches blown down
10	Storm	Damage to buildings
11	Violent Storm	Widespread damage to buildings
12	Hurricane	Devastation

https://frugalfun4boys.com/make-an-anemometer-to-observe-wind-speed/
https://www.weather.gov/mfl/beaufort